



Substitute  
Specification

O.K.

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(144)  
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METHOD FOR MARKING PACKETS OF A DATA TRANSMISSION FLOW AND  
MARKER DEVICE PERFORMING THIS METHOD

BACKGROUND OF THE INVENTION

[0001] The present invention relates to a method for marking packets of a data transmission flow pertaining to an end-to-end connection, and to a marker device for performing said method.

[0002] Marker devices and methods of operation are already known in the art, e.g. from "RFC 2697 of the IETF Network working group". Therein, a single rate three color marker is presented which marks packets of a traffic stream to be either green, yellow or red. These three color marking values can be considered as priorities. These priorities are based upon three traffic parameters which correspond to service quality parameters of the traffic stream under consideration.

[0003] In the Internet, which is an example of a packet network, such a method and marker device, in conjunction with a drop mechanism in the routers based on the priorities of the data packets, and in conjunction with the intrinsic properties of the TCP/IP protocol, allow for differentiation of several traffic flows based on their service quality and/or traffic parameters. These service quality parameters are generally agreed between the user and the Internet Service Provider, hereafter abbreviated with ISP, before the actual transmission of data takes place. The combination of all three mechanisms results in a differentiation of the reduction of the rate of the respective traffic flows in accordance to their respective priorities, in case of congestion within the Internet. Since these priorities are determined based on the service quality parameters, service level differentiation is thus obtained.